

**APPARATUS, SYSTEM AND METHOD FOR ALLOCATING UPSTREAM
AND DOWNSTREAM CHANNELS IN A CELLULAR COMMUNICATION
SYSTEM HAVING A WIRELESS BACKHAUL**

ABSTRACT OF THE INVENTION

Link signals exchanged between a base station and a distribution station within a cellular communication system have reversed sidebands as compared to corresponding coverage signals exchanged with mobile stations. An odd number of high side mixing procedures are performed on a received coverage signal to form a link signal with reversed sidebands. A coverage signal is formed by performing an odd number of high side mixing procedures on a received link signals to reverse the sidebands to their original format.